

THE ANNALS

AND

MAGAZINE OF NATURAL HISTORY.

[FOURTH SERIES.]

No. 60. DECEMBER 1872.

LVIII.—*On a new Family and Genus and two new Species of Thelyphonidea.* By the Rev. O. P. CAMBRIDGE, M.A., C.M.Z.S.

[Plate XXII.]

IN September 1871, among numerous spiders of great interest received from Ceylon from Mr. G. H. K. Thwaites were several other minute Arachnids. At first sight I was inclined to pass them over as very young examples of some species of *Thelyphonus*; but a closer examination showed them to be not only destitute of eyes (no vestige of a visual organ being apparent), but presenting some other remarkable differences in form and structure from the genus *Thelyphonus*. The principal of these differences (which seem to render it necessary to form a new family to receive these arachnids) are the subdivision of the cephalothorax into two segments, the broad fore part, and the convexity of the first segment (including the caput), whose fore margin is prolonged into a central pointed beak-like prominence: other interesting and important generic and specific characters are also detailed below. As far as I am able to determine, the examples comprise two species.

Mr. Thwaites informs me that these arachnids were found by M. Ferdinandus (the successful discoverer of the four-eyed spiders, *Miagrammopes*, Cambr.) among decayed leaves &c. on the ground. The absence of eyes was observed by M. Ferdinandus, who begged Mr. Thwaites to call my attention to it.

The discovery of a blind arachnid thus above ground is a remarkable fact. As far as I am aware, there is no instance on record of any blind creature having ever been found except

in caves, where (the supposition is) the eyes have become gradually and at length totally obsolete from ages on ages of disuse. If in the present instance the eyes of this Ceylon arachnid have vanished from a similar cause, the light having been shut out merely by the interposition of decayed leaves, it would seem to show, on the part of these creatures, a persistency in keeping out of the light almost amounting to a quasi-suicidal determination.

Although undoubtedly a near ally to *Thelyphonus*, yet a strong general resemblance to *Solpuga* may be traced in the form and segmentation of the cephalothorax. The rough sketches of the main features of form and structure, added to the subjoined descriptions, will, it is hoped, give a better idea of the peculiarities of these small but very interesting arachnids than could be formed from description alone.

Order THELYPHONIDEA.

Fam. nov. Tartarides.

Nearly allied to the family *Thelyphonides*, but differing in the general form, which is more elongate. The cephalothorax also is divided into two parts or segments; the first comprises the caput and segments belonging to the first two pairs of legs, the hinder part (much the smallest) comprises the segments pertaining to the third and fourth pairs of legs; but in neither part are these segments indicated by any groove or indentation. The abdomen is segmented, or rather covered both above and below with articulated, corneous, transverse plates; the upper series is separated from the lower, being divided from it by a horizontal narrow divisional line or space; it terminates with a short tail, varying in form in different species, and issuing from the last of several small postabdominal rings or segments.

Gen. nov. NYCTALOPS.

Cephalothorax divided into two parts, oblong, tolerably convex above; the foremost part greatly the largest and of a somewhat oblong form, broader before than behind, the fore corners depressed and rounded; the central part of the fore margin is prolonged into a strongish pointed rostrum or beak, the point of which is a little depressed; the hinder part is broader than long, and appears to be simply an arched covering to the sternal surface, upon which the two hinder pairs of legs are articulated.

Eyes none.

Palces strong, much deeper than broad, of a flattened cylindrical form; they project in the same plane as the cephalo-

thorax, and terminate with a movable, sharp, curved fang, which appears to be destitute of teeth.

Palpi very strong, 5-jointed; each issues from a large, strong, long, nearly cylindrical basal joint or maxilla, the inner fore corner of which is prolonged into a sharp strong point; the other joints are armed variously with teeth; and the final or digital joint terminates with an apparently movable, sharp, curved fang.

Legs moderately long, 7-jointed, those of the first pair much the longest, slender, and palpiform; the tarsal joint of this pair is divided into several minute articulations, and without any terminal claws; the tarsi of the other three pairs appear to be undivided, and each is furnished with three simple, curved, terminal claws; the femora of the fourth pair are of inordinate strength.

Abdomen covered above and below with transverse horny plates, and ending with a variously formed, short, caudal prolongation.

Sternum situated beneath the fore portion of the cephalothorax, between the basal joints of the legs of the first two pairs, of a somewhat hollow-sided pentagonal form, considerably drawn out behind. There is no sternum, properly so called, connected with the basal joints of the legs of the two hinder pairs, these being articulated to the general sternal surface of that portion of the cephalothorax.

Nyctalops crassicaudata, sp. n. Pl. XXII. fig. 1.

Length $2\frac{1}{2}$ lines.

The general colour is yellow-brown, the cephalothorax being of a rather darker though duller hue than the rest, and the palpi and falces a little richer and brighter, with red-brown edgings to their different articulations.

The *legs* are sparingly furnished with hairs and fine spine-like bristles; the two superior terminal claws are long, moderately strong, simple, and curved, the inferior one small and sharply bent downwards; their relative length is 1, 4, 2, 3, those of the first pair much the longest, slender, and without terminal claws; the tarsi short, and subdivided into about six minute articulations.

The *palpi* issue from the maxilla by a narrowish neck, but quickly swell out into a strong tumid first joint, which has a moderately strong, curved, sharp-pointed tooth at its lower outer fore corner, and another smaller one opposite to it on the inner side; the second joint is still stronger, longer, and also more tumid; the third is not so large, but very nearly as long, rather bent, and with a moderate strong sharp tooth

directed forwards on its underside; the fourth joint is a little longer than the third and straighter, and appeared to be somewhat serrated beneath; the fifth or digital joint is a little curved, slightly tapering, and has a sharp terminal claw, which appeared to be movable; beneath the fifth joint are some small teeth.

The *abdomen* has eight transverse corneous plates above, and seven beneath; the first of those beneath is much the largest, and probably conceals the sexual parts, which, however, presented no external aperture beyond a line-like fissure: near the fore margin of each of the three succeeding plates are two small reddish-brown transverse slits, probably the openings to the breathing-apparatus; these openings form two parallel longitudinal rows. In this view the spiracular openings would be six in number; but it was difficult to determine whether or not there were two others connected with the hinder margin of the first segment. Several very narrow plates, decreasing rapidly in size, form a sort of postabdominal continuation, terminating with a caudal appendage of a peculiar form, somewhat resembling the fluke of an anchor blunted at the point and rounded at the hinder corners; from this appendage there issue a few long, straight, slender, diaphanous, spine-like bristles, of which there are also numerous others beneath the hinder part of the abdomen.

Several examples of this species were received from Ceylon (where they were found, under decayed leaves and rubbish, by M. Ferdinandus in the Royal Botanic Gardens), and kindly sent to me by Mr. G. H. K. Thwaites, together with numerous rare and new spiders.

I could not determine with any certainty whether or not these examples were adult, or, indeed, of which sex they were; there was no apparent difference whatever of form or structural detail by which the sex might be concluded.

Nyctalops tenuicaudata, sp. n. Pl. XXII. fig. 2.

Length $2\frac{1}{4}$ lines.

In general form, structure, and colour this species resembles the foregoing; but it may readily be distinguished by the almost total absence of the teeth at the extremity of the first joint of the palpus, these being quite rudimentary; those on the other joints also appeared to be wanting; another strong character is also furnished by the caudal appendage being slender and cylindrical. Possibly this may be the female of the former species; I am, however, inclined to think that it is distinct.

Several examples were found in the Ceylon collection received from Mr. Thwaites.

EXPLANATION OF PLATE XXII.

Fig. 1. Nyctalops crassicaudata: *a*, profile, greatly enlarged; *b*, cephalothorax, abdomen, and falces, upperside, with legs truncated and palpi absent; *c*, underside, showing maxillæ and sternum; legs and palpi truncated; *d*, first two joints of right palpus, from outer side in front; *e*, hinder extremity of abdomen, showing caudal appendage, from underside; *f*, profile of fore part of cephalothorax, showing falx and fang; maxilla and portion of first joint of palpus truncated; *g*, natural length, exclusive of caudal appendage.

Fig. 2. Nyctalops tenuicaudata: *a*, left palpus, from outer side; *b*, hinder extremity of abdomen, showing caudal appendage; *c*, left leg of fourth pair, from the outer side; *d*, first two joints of right palpus, from outer side, rather in front; *e*, natural length, exclusive of caudal appendage.

LIX.—*On Balænoptera patachonica and B. intermedia.*
By Dr. H. BURMEISTER*.

AN interesting acquisition is the skeleton of the whale met with in our river near the mouth of the Rio de Jujan during the month of August. Unfortunately the skeleton is not complete, owing to the negligence of the people who cleaned it provisionally; it wants the extreme point of the tail and the ends of both fins, which defect greatly diminishes its scientific value.

The skeleton belongs to the species which I have described (Proc. Zool. Soc. 1865, p. 191) under the name of *Balænoptera patachonica*, and completes our knowledge of that species, founded on an imperfect specimen, which showed some characters of importance—and proves, by its perfect identity with that specimen, that the other whale received last year (see Boletin, p. vii) does not belong to the same species, but is quite different, as I can now confidently prove by comparison of the two entire skeletons.

The whale now found was, according to the information given by the sailors, 22 varas or 58 feet in length; but as I did not see the animal before the body had been dried, I cannot accurately describe its external appearance. Therefore the only subject for comparison is the skeleton, the general characters of which I will now give.

The specimen in question was, like the other, rather young—as is proved by the vertebræ separate from the free apophyses,

* Translated by Miss Miers from the 'Boletin del Museo publico de Buenos Aires,' 1871, from a corrected copy with additions sent by the author.